AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the present application.

LISTING OF THE CLAIMS:

1-12. (canceled).

13. (currently amended) A cluster for adjusting a pressurised water nuclear reactor comprising:

a bundle of neutron-absorbing rods, each comprising a metal tube called cladding which is sealed off at an upper extremity by a top end plug and at a lower extremity by a bottom end plug and a support of radiating shape, to which the absorbing rods are attached through the top end plugs, wherein the cladding of at least one of the absorber rods are weld-free hafnium tubes, the top end plugs of the absorber rods having hafnium cladding are of a titanium-based alloy and welded to a part of the upper extremity of the hafnium cladding of the absorber rod, and the bottom end plugs being of massive hafnium and welded to the lower extremity of the hafnium cladding of the absorber rod.

14. (currently amended) The cluster for adjustment according to claim 13, wherein the top end plugs of the absorber rods having a hafnium tube are one of ~~or~~ TA6V and TA3V2.5 titanium alloy.

15. (previously presented) The cluster for adjustment according to claim 13, further comprising:

oxidation on the rods, the oxidation protecting against wear of the rods, the oxidation produced at a temperature of 1300°C to 1700°C in an oxidising atmosphere, with travel at a rate of 50-250 mm/min over the cladding welded to the bottom end plug.

16. (currently amended) The cluster for adjustment according to claim 13, wherein ~~further comprising:~~

~~a titanium alloy on the top end plugs providing~~ protection against wear of the top end plugs~~,~~ made of the titanium-based alloy is obtained by treatment in a static furnace in an oxidising atmosphere under conditions ensuring that the properties of the titanium-based alloy persist.

17. (previously presented) The cluster for adjustment according to claim 16, wherein the treatment in a static furnace is performed at a temperature of between 550°C and 850°C for a period of between 2 and 12 hours.

18. (previously presented) The cluster for adjustment according to claim 13, wherein at least one of the top end plugs and the bottom end plugs are welded using at least one of friction welding, resistance welding and TIG welding.

19. (previously presented) The cluster for adjustment according to claim 13, wherein the hafnium used to manufacture the cladding and the bottom end plugs contains more than 300 ppm of oxygen.

20. (previously presented) An absorber rod of a cluster for adjustment of a pressurised water nuclear reactor, comprising:

a cladding of hafnium;

a top end plug of titanium alloy welded to an upper extremity of the hafnium cladding; and

a bottom end plug of massive hafnium welded to a lower extremity of the hafnium cladding.

21. (currently amended) A cluster for adjustment of a pressurised water nuclear reactor, comprising~~,~~ :

a bundle of rods;

and a support of radiating shape called a spider to which the rods are fixed through top end plugs, wherein the spider is made of titanium-based alloy.

22. (previously presented) The cluster for adjustment according to claim 21, wherein at least one of the absorber rods in the cluster comprise a hafnium tube and a top end plug of titanium alloy welded to a top extremity of the hafnium tube.

23. (currently amended) A process for protecting the ~~an~~ absorber rod according to claim 20 against wear, comprising:

oxidizing the ~~a~~ cladding of hafnium ~~an absorber rod~~ at a ~~high~~ temperature above 1300 ~~1700~~°C in an oxidizing atmosphere.

24. (previously presented) The process for protection according to claim 23, further comprising:

oxidizing the cladding welded to the bottom end plug in a traveling arrangement at a temperature of 1300°C to 1700°C at a rate of 50 to 250 mm/min.

25. (currently amended) A cluster for adjusting a pressurised water nuclear reactor comprising:

a bundle of neutron-absorbing rods, each comprising a metal tube called cladding which is sealed off at an upper extremity by a top end plug and at a lower extremity by a bottom end plug and a spider of radiating shape, to which the absorber rods are attached through the top end plugs, wherein the cladding of some at least of the absorber rods are weld-free hafnium tubes, the top end plugs of the absorber rods having hafnium cladding are of a titanium-based alloy and welded to a part of the upper extremity of the hafnium cladding of the absorber rod, and the bottom end plugs being of massive hafnium and welded to the lower extremity of the hafnium cladding of the absorber rod.